DISTRIBUTED SECURITY FOR INDUSTRIAL NETWORKS

ABSTRACT

5   Distributed security for industrial networks is achieved through the implementation of Security Policy Implementation Points (SPIPs) on the network to apply security policy in a distributed fashion to prevent network users from taking action in particular areas of the network. The SPIP integrates with network services to perform authentication and authorization services on behalf of particular factory machines, groups of factory machines, and other industrial

10   network resources. The SPIP also maintains a local access policy to enable emergency access to the factory machines as well as enable local access to attendant programmable logic controllers. The SPIP also includes audit functionality to enable the SPIP to record local accesses and network accesses to maintain a log of users and network devices that have interfaced with the SPIP. The SPIP may also support VPNs, encryption, compression, and numerous other

15   functions to engage in communications on the network.